

# **Modified Water Deliveries Project**

## **Project Cooperation Agreement**

### **Amendment 2**

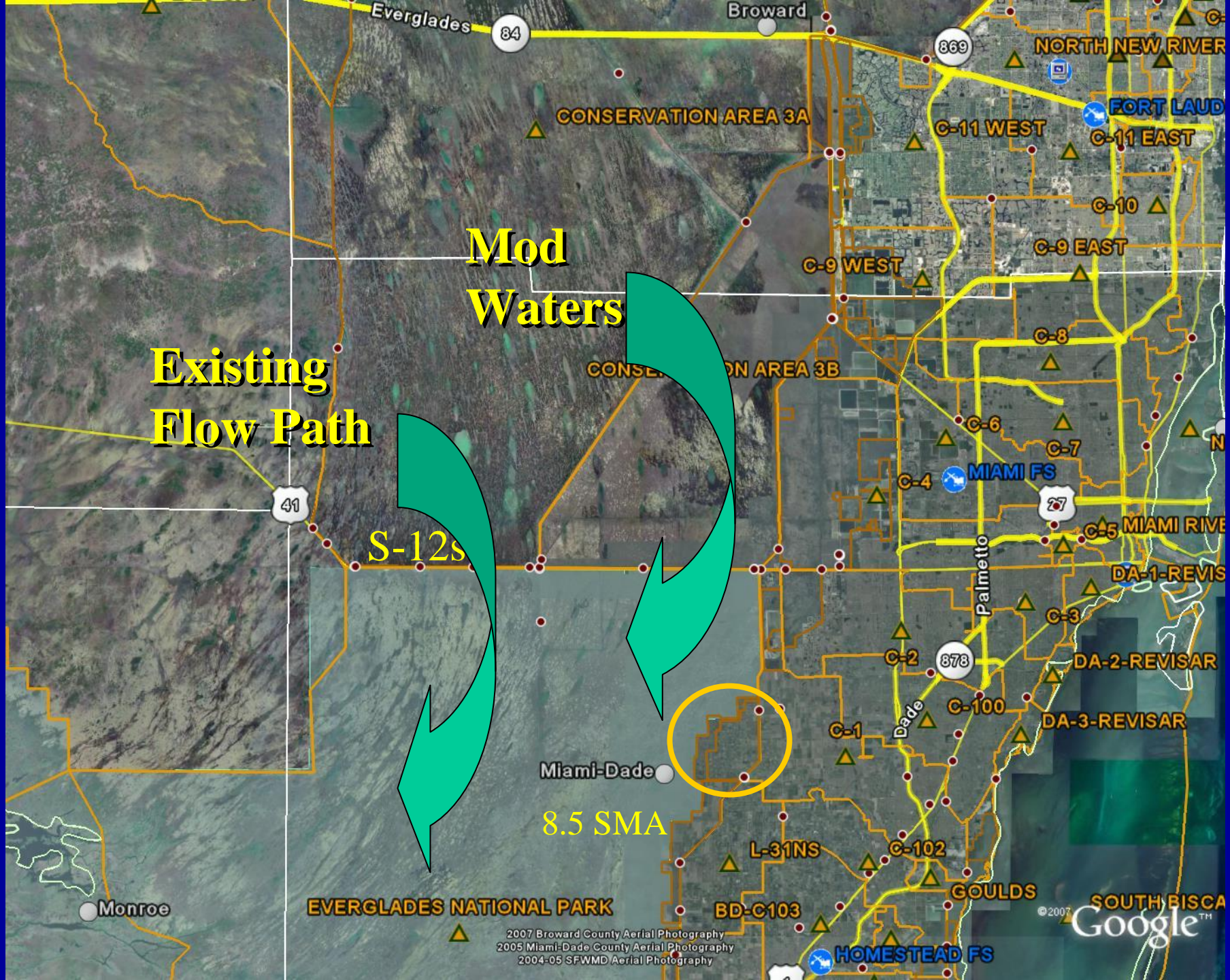
### **Tamiami Trail Bridge**

June 12, 2008

Discussion Agenda

Dewey Worth, Dir. Southern Everglades Restoration Planning Division

Everglades Restoration Resource Area



**Mod  
Waters**

**Existing  
Flow Path**

S-12s

Miami-Dade  
8.5 SMA

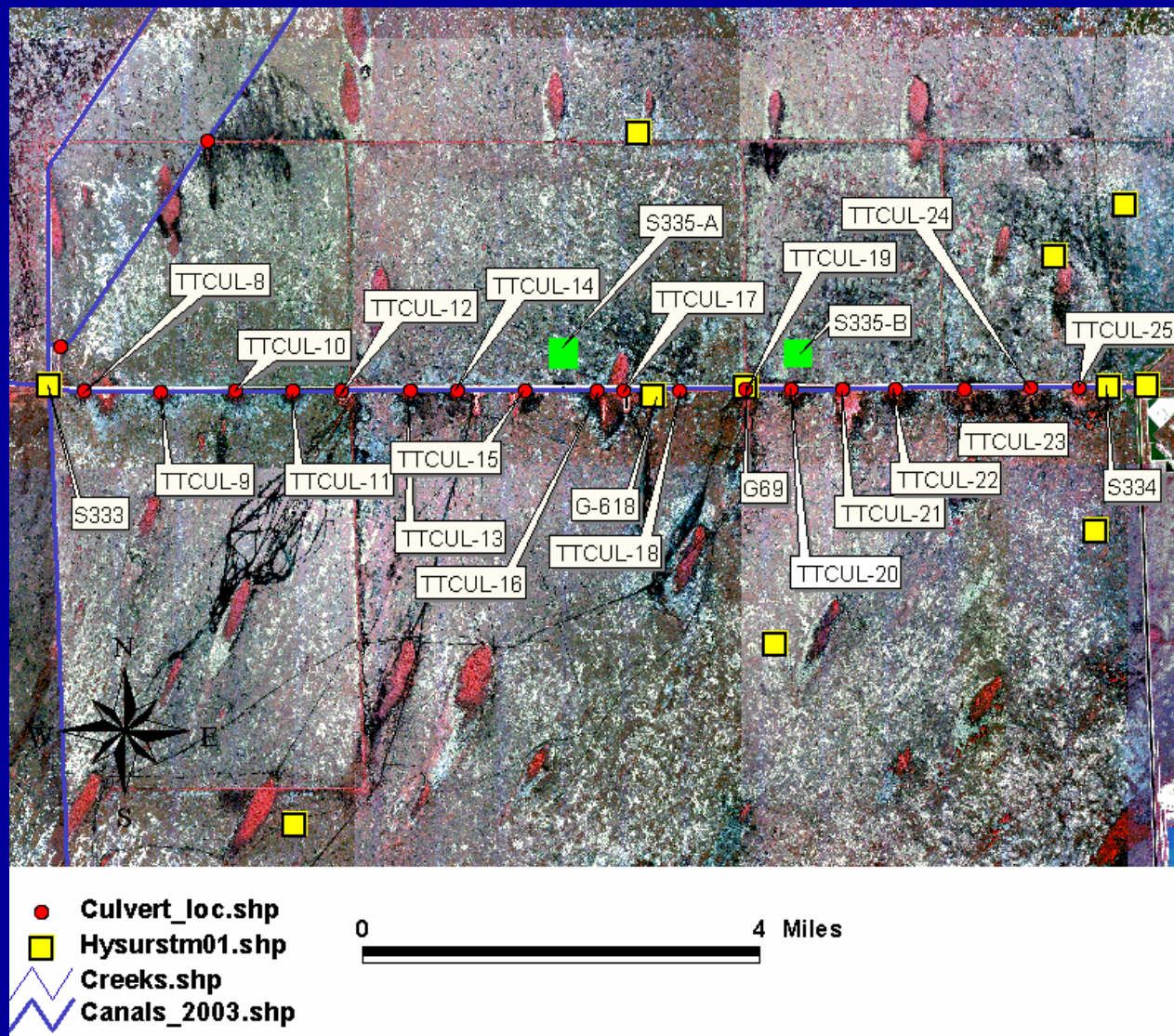
EVERGLADES NATIONAL PARK

2007 Broward County Aerial Photography  
2005 Miami-Dade County Aerial Photography  
2004-05 SFWMD Aerial Photography

© 2007 Google™



**Tamiami Trail is a filled roadbed cutting across the heart of the Everglades and obstructs water movement and wildlife**



**Water Flows along the Tamiami canal and enters ENP through a series of small culverts**

## **East Tamiami Trail Culverts**

**(Between Structures S333 and S334)**



**Flows through the structure are limited by size of the structure and dense vegetation downstream. A bridge span offers a broader area to allow water to move into the park following natural flowways (areas of less resistance to flow)**



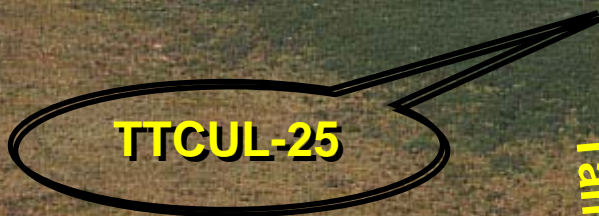
**Culvert Under Tamiami Road into ENP**



Aerials Only Gallery (508) 295-5551 ©  
4-9594 Everglades, Tamiami Trail & Canal



**WCA-3B**



**ENP**

Tamiami Road

**S-334**

[www.skypic.com](http://www.skypic.com)

*GRM*

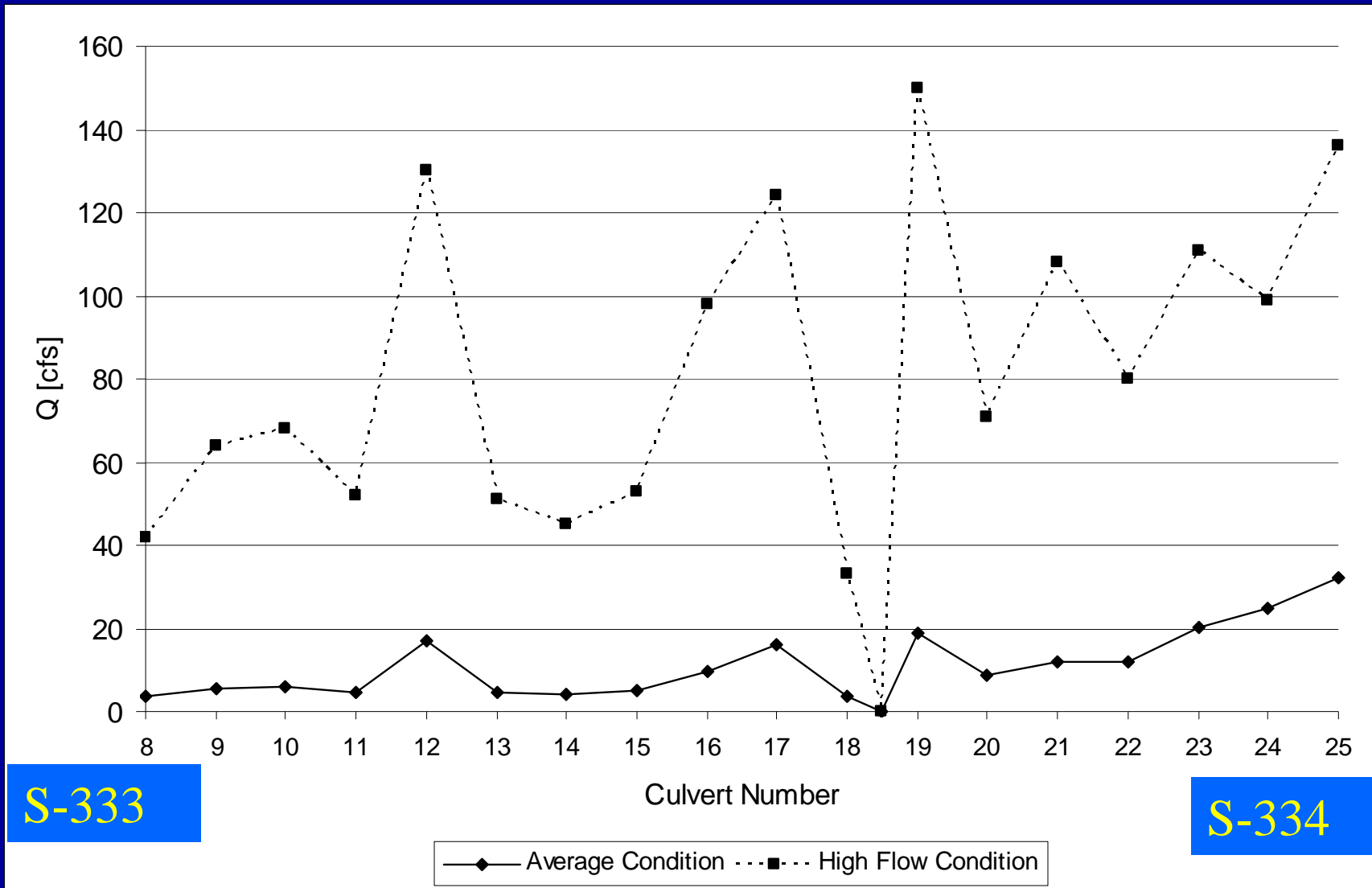




TTCUL-8 Culvert Structure Looking SW

# East Tamiami Trail Culvert Flow Distribution

USGS Data (Oct 2000 to Sept 2001)



# **Modified Water Deliveries Project**

## **Tamiami Trail (TT) Design Conditions**

### **Improve Flow to Everglades National Park**

- **Replace 1-Mile of Road with a Bridge**
- **Increase Operating Water Levels in TT Borrow Canal from 7.5 ft to 8.5 ft (allows more water flow through existing culverts and under new bridge section)**
- **Raise Road Surface on 30% of TT to Prevent Flooding Road Base from Higher Water Levels**
- **Adjust Operations to Deliver 55% of Water Through Eastern TT and 45% to Western TT**



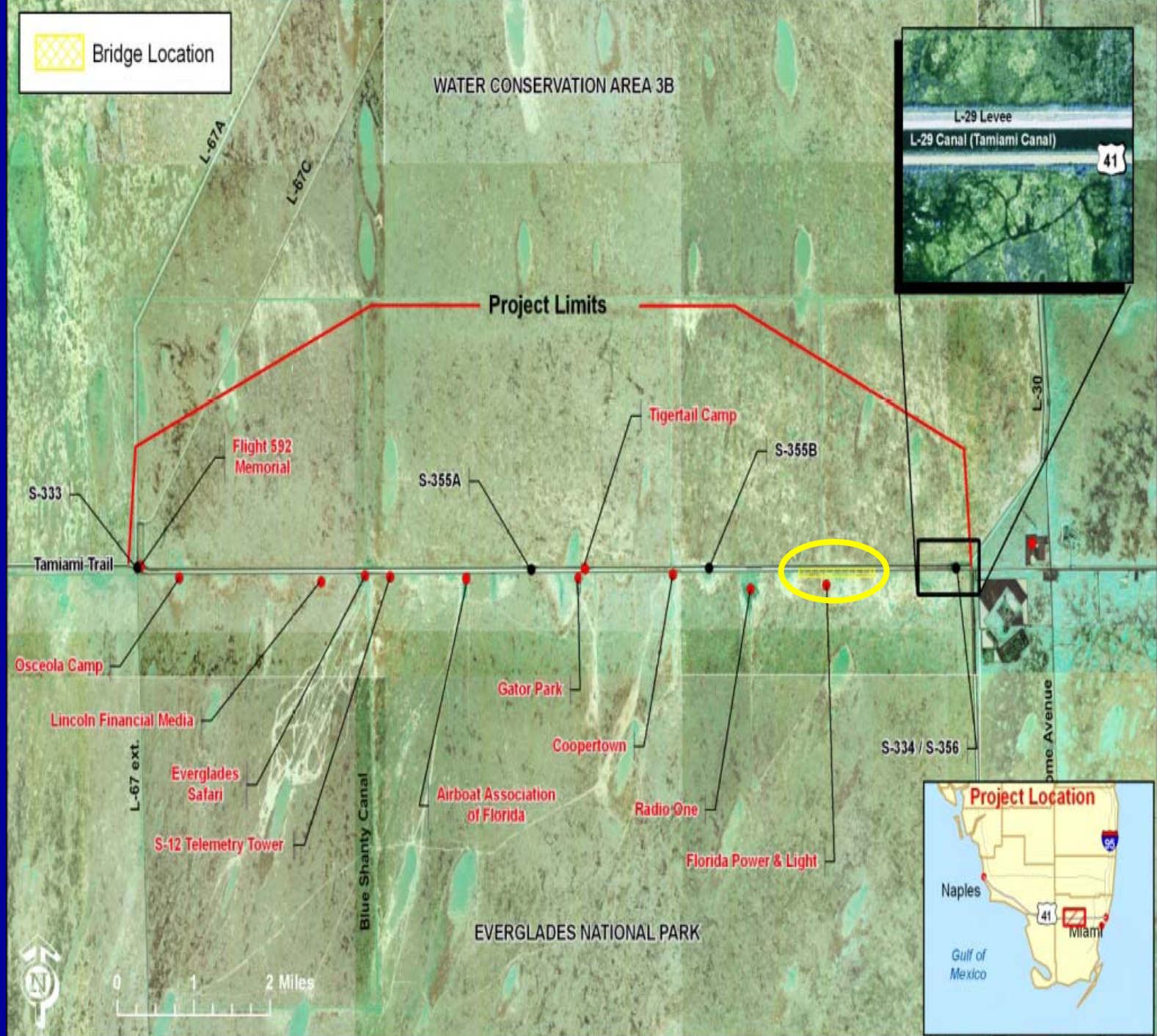


Bridge Location

WATER CONSERVATION AREA 3B



Project Limits



# **Modified Water Deliveries Project**

## **Amendment-2 for Tamiami Trail (TT)**

### **Federal Obligations**

- **Design and Construct 1-Mile Bridge, Remove Road**
- **Improve Road Surface on 30% of TT**
- **Construct Conveyance Under Bridge Connecting TT Borrow Canal (L-29 canal) with Everglades National Park**
- **Acquire Project Lands and Easements as Needed**
- **Pay 75% of costs for Operation and Maintenance**
  - **Bridge Maintenance Agreement with Florida Department Transportation**



# **Modified Water Deliveries Project Amendment-2 for Tamiami Trail (TT)**

## **Local Sponsor Obligations**

- **Maintain Flow Conveyance Under the Bridge**
- **Pay 25% of costs for Operation and Maintenance for Flow Conveyance Under the Bridge (\$30K/yr)**
- **Provide approximately 29,000 cu yds of spoil material for construction**

# **Modified Water Deliveries Project Amendment-2 for Tamiami Trail (TT)**

## **Construction Betterment Memorandum**

- **Modify bridge design and construct enhancements for FPL future power line relocation – 100% SFWMD Costs**

➤ <b>Added Design Costs</b>	<b>\$11, 589.00</b>
➤ <b>Added Construction Costs</b>	<b>\$ 145,920.00</b>
<b>Total</b>	<b>\$ 157,509.00</b>

- **SFWMD & Florida Power and Light  
Memorandum to reimburse costs of  
betterment**



# **Amendment-2 for Tamiami Trail (TT)**

## **Required Supporting Agreements**

- **Temporary Construction Easements (USACE)**
  - **Florida Department Transportation**
  - **National Park Service**
  - **Florida Power and Light**
- **Permanent Easements and/or Land Exchange (USACE – NPS – FPL - FDOT)**
- **Sediment and Exotic Vegetation Maintenance Agreement\* (SFWMD – USACE)**
- **Water Control Plan for Operations\* (USACE-SFWMD-NPS)**

# Modified Water Deliveries Project

## Amendment-2 for Tamiami Trail Bridge

### **RESOLUTION NO. 2008 \_\_\_\_\_**

**A RESOLUTION OF THE GOVERNING BOARD OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT TO AUTHORIZE ENTERING INTO A SECOND AMENDMENT TO THE PROJECT COOPERATION AGREEMENT BETWEEN THE U. S. ARMY CORPS OF ENGINEERS AND THE SOUTH FLORIDA WATER MANGEMENT DISTRICT FOR MODIFICATION OF THE CENTRAL AND SOUTHERN FLORIDA FLOOD CONTROL PROJECT TO IMPROVE WATER DELIVERIES INTO EVERGLADES NATIONAL PARK FOR THE PURPOSE OF IMPLEMENTING THE TAMIAMT TRAIL FEATURES; PROVIDING AN EFFECTIVE DATE. (CONTRACT NUMBER C-12903-A02 / 36000000054-A02)**



# **Memorandum Of Agreement Between SFWMD and USACE for a Betterment to Modified Water Deliveries Project**

## **RESOLUTION NO. 2008 \_\_\_\_\_**

**A RESOLUTION OF THE GOVERNING BOARD OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT TO AUTHORIZE ENTERING INTO A MEMORANDUM OF AGREEMENT WITH THE U.S. ARMY CORPS OF ENGINEERS WITH RESPECT TO A BETTERMENT FOR MODIFICATION OF THE CENTRAL AND SOUTHERN FLORIDA FLOOD CONTROL PROJECT TO IMPROVE WATER DELIVERIES INTO EVERGLADES NATIONAL PARK FOR THE PURPOSE OF IMPLEMENTING THE TAMiami TRAIL FEATURES; AND AUTHORIZE A BUDGET TRANSFER IN THE AMOUNT OF \$157,509 FROM DEDICATED FUNDS (CERP AD VALOREM) FROM THE SOUTHWEST FLORIDA FEASIBILITY STUDY PROJECT TO THE MODIFIED WATERS PROJECT; PROVIDING AN EFFECTIVE DATE. (CONTRACT NUMBER 4600001439)**